

CLAIMS

1. In a wireless communication device, a method for use in reestablishing a data connection with a wireless data network comprising:

5 maintaining a data connection with a wireless communication network; and

if the wireless communication device is powered off during an out-of-coverage condition with the wireless communication network:

after the wireless communication device is powered back on, transmitting a message to the wireless communication network which causes one or more network parameters associated with the data connection to be reset.

2. The method of claim 1, comprising the further act of:

after transmitting the message, transmitting one or more additional messages to the wireless communication network for reestablishing the data connection with the wireless communication network.

3. The method of claim 1, comprising the further act of:

after transmitting the message, attaching to and establishing a Packet Data Protocol (PDP) context with the wireless communication network.

4. The method of claim 1, wherein the act of maintaining the data connection comprises maintaining an attachment to the wireless communication network.

5. The method of claim 1, wherein the act of maintaining the data connection comprises maintaining a Packet Data Protocol (PDP) context session.

6. The method of claim 1, wherein the act of transmitting the message comprises the further act of transmitting a disconnect frame to the wireless communication network.

7. The method of claim 1, wherein the one or more network parameters comprise an encryption parameter which is reset.

8. The method of claim 1, wherein the powering off of the wireless communication device during the out-of-coverage condition causes the message to be transmitted to the wireless communication network when the wireless communication device regains network coverage.

9. A wireless communication device, comprising:

a receiver;

a transmitter;

one or more controllers coupled to the receiver and the transmitter;

the one or more controllers operative to:

maintain a data connection with a wireless communication network; and

if the wireless communication device is powered off during an out-of-coverage condition with the wireless communication network: after the wireless communication device is powered back on, cause a message to be transmitted to the wireless communication network which causes one or more network parameters associated with the data connection to be reset.

10. The wireless communication device of claim 9, wherein the one or more controllers are further operative to:

cause one or more additional messages to be transmitted to the wireless communication network for reestablishing the data connection with the wireless communication network.

11. The wireless communication device of claim 9, wherein the one or more controllers are further operative to:

cause one or more additional messages to be transmitted to the wireless communication network for reestablishing the data connection with the wireless communication network; and

wherein the transmitting of the messages is performed after the wireless communication device regains coverage with the wireless communication network.

12. The wireless communication device of claim 9, wherein the wireless communication device is powered off automatically or manually during the out-of-coverage condition.

13. The wireless communication device of claim 9, wherein the data connection comprises a Packet Data Protocol (PDP) context with the wireless connection network.

14. The wireless communication device of claim 9, wherein the data connection is comprises an attachment to the wireless communication network.

15. The wireless communication device of claim 9, wherein the one or more controllers are operative to transmit a message comprising a disconnect frame.

16. A wireless communication system, comprising:
a wireless communication network;
a wireless communication device having a data connection established with the wireless communication network, the wireless device including:
a receiver;
a transmitter;
one or more controllers coupled to the receiver and the transmitter; and
the one or more controllers being operative to, after the wireless communication device is powered back on, cause a disconnect frame to be transmitted to the wireless communication network in response to the wireless communication device being powered off during an out-of-coverage condition with the wireless communication network.

17. The wireless communication system of claim 16, wherein the one or more controllers of the wireless communication device are further operative to:
transmit one or more additional message for reestablishing the data connection.

5 18. The wireless communication system of claim 16, wherein the data connection comprises a Packet Data Protocol (PDP) context.

19. The wireless communication system of claim 16, wherein the one or more controllers are further operative to cause the data connection to be established by causing a
10 General Packet Radio Service (GPRS) attach request to be transmitted to the wireless communication network.

20. The wireless communication system of claim 16, wherein the powering off of the wireless communication device during the out-of-coverage condition causes the
15 disconnect frame to be transmitted to the wireless communication network when the wireless communication device is powered back on.